



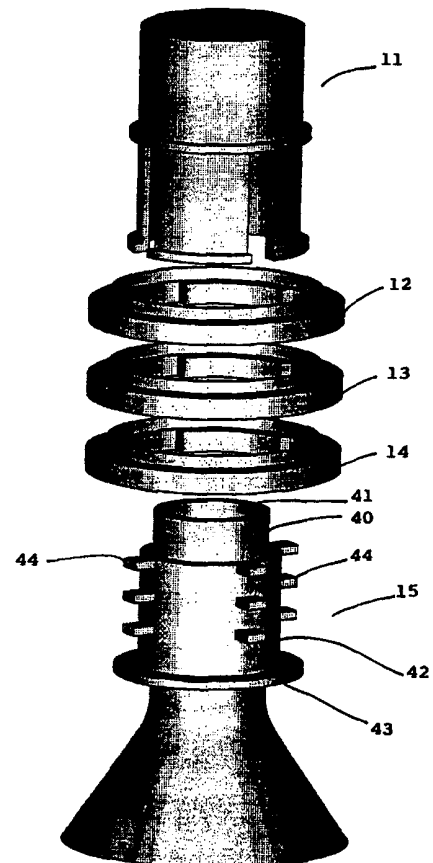
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(54) Title: A CLOSURE DEVICE FOR PREVENTING EASY REMOVAL OF A LID

(57) Abstract

A closure device for preventing easy removal of a container lid. The device comprises a cover (11) which sits over the container opening (41) and top section (40) which locates the lid. The cover mates with co-operating means (44) on the neck of the container and the device also has securing means (12, 13, 14) for securing the device onto the container.



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A CLOSURE DEVICE FOR PREVENTING EASY REMOVAL OF A LID
FIELD OF THE INVENTION

The present invention relates to storage containers.

BACKGROUND OF THE INVENTION

5 The present invention has a particular application
to containers which are used for storing foodstuffs or
dangerous products. For example a bottle of softdrink is
normally sealed using a reusable cap which is able to be
screwed and unscrewed from the top of the bottle. The
10 soft drink can be poured out of the bottle and the cap
can be replaced to provide an airtight seal. The problem
with such a cap however is that it is not possible to
prevent anybody obtaining access to the softdrink inside
the bottle. Likewise a bottle containing tablets can be
15 provided with a childproof cap, however the cap is still
able to be removed and replaced by any adult, leading to
the possibility of a person being able to contaminate the
bottle contents.

It would be desirable to produce a closure device
20 which would be able to prevent a container lid from being
removed.

SUMMARY OF THE INVENTION

According to one aspect of the present invention
there is provided a closure device for preventing easy
25 removal of a lid, the device comprising a cover adapted
to fit over a lid of a container and a closure coupling
means adapted to be coupled with a container coupling
means of the container to secure the closure to the
container.

30 Preferably the device comprises a neck region
including first and second abutment surfaces at
respective end portions thereof.

Preferably the closure coupling means of the closure
includes at least one sleeve member which is adapted to
35 be located over the neck region between the end portions.

It is preferred that there are a plurality of sleeve
members located over the neck region.

The sleeve members may be in the form of collars.

According to one embodiment the sleeve members are ring elements retained between the abutment surfaces at respective end portions of the neck region.

According to one embodiment the coupling means is in the form of a combination lockable device.

The closure coupling means may include coupling portions adapted to couple with coupling portions of the container coupling means.

The closure coupling portions may include peripheral female portions in the neck region.

Preferably the container coupling portions include peripheral male portions in the neck of the container.

The closure female portions may comprise axial slots.

It is preferred that the container male portions comprise peripheral protrusions on lugs adapted to fit into the axial slots of the female portions.

According to one embodiment the closure coupling means has the reverse configuration of the neck region of the container whereby male portions are located on the neck region of the closure device and female portions are located in the neck region of the container.

Preferably each abutment surface is in the form of a peripheral flange having a greater diameter than the internal diameter of each coupling member of the coupling means.

According to one embodiment the coupling means comprises a plurality of slots which extend through the lower end flange of the closure device.

It is preferred that the closure device comprises a handle portion located above the neck region.

It is preferred that the closure device comprises a housing portion which is adapted to completely cover a lid of a container.

According to one embodiment each sleeve member comprises a ring element including at least one female inner peripheral portion.

It is preferred that the sleeve members are

rotatable around the neck region to align inner peripheral female portions with slots in the neck region.

It is preferred that there are a plurality of ring elements of substantially equal size.

5 It is preferred that the female inner peripheral portion comprises a recess which when aligned with a slot enables a protrusion of a neck region of a container to slide along the slot.

10 It is preferred that each female inner peripheral portion comprises a rectangular channel.

It is preferred that the or each ring element is loosely held on the neck region so that the combined axial length of the ring elements is less than the axial length of the neck region as measured between the
15 abutment surfaces.

It is preferred that a space exists between adjacent ring elements sufficient to permit a male portion of a container to be located therebetween.

20 According to another embodiment each ring element has at least two inside peripheral regions each having a different diameter.

It is preferred that a first inside peripheral region is provided with female coupling portions and a second inside peripheral region is provided with an inner
25 peripheral area of greater inside diameter than the first inside peripheral region.

30 Preferably the inside radius of the second inside peripheral region is the same as or larger than the inside radius of at least one of the female portions in the first inside peripheral region.

35 According to one embodiment each ring element comprises a region having a greater inside radius than the maximum radial length of a male portion of the neck of the container measured from a control axis of the neck.

According to another embodiment when a protrusion of a container is positioned in a spacer region of any of the ring elements that ring element will be able to

rotate over the protrusion.

According to another embodiment of the present invention the container coupling means comprises a container coupling device which is adapted to be located
5 over the neck of a container prior to a lid being placed on the container, whereby the lid prevents removal of the container coupling device.

It is preferred that the container coupling device includes a collar having coupling means which is arranged
10 to couple with the closure coupling means.

It is preferred that the collar coupling means includes either male or female coupling portions or a combination thereof.

According to another aspect of the present invention there is provided a container having an opening and a
15 neck portion including container coupling means adapted to couple with coupling means of a closure device and a lid receiving section for receipt of a lid to seal the contents of the container, wherein the container coupling
20 means is adapted to couple with the coupling means of a closure device subsequent to the lid sealing the contents of the container.

It is preferred that the lid forms a seal which is airtight although a substantial airtight seal is also
25 encompassed or a seal which prevents escape of the contents of the container.

Preferably the container coupling means is located below the lid receiving section.

The container coupling means may comprise coupling
30 portions adapted to couple with matching coupling portions of the closure device.

The container coupling portions may include peripheral protrusions.

The container coupling portions may include a
35 plurality of axially aligned peripheral protrusions.

It is preferred that the peripheral protrusions are equispaced protrusions.

The protrusions may be in the form of radial lugs.

It is preferred that the radial lugs are rectangular in cross-section.

It is preferred that the protrusions are spaced axially and in alignment.

5 It is preferred that the axial space between adjacent protrusions is at least equivalent to the axial length of a coupling portion of a sleeve element of a coupling means of a closure device.

10 It is preferred that the protrusions are adapted to fit into slots in the sleeve elements.

Preferably each of the protrusions is able to pass through an opening or recess formed in an inside face of at least one of the sleeve elements of the closure device coupling means.

15 It is preferred that the protrusions are able to move along slots formed in the closure device and extend beyond the outer periphery of a neck region comprising the slots.

20 It is preferred that the container neck portion comprises a peripheral flange at a lower end thereof so as to form an abutment with a lower end of the closure device when located over the neck portion.

25 The closure device may be adapted to fit over the neck portion with protrusions aligning with slots in the closure device and slidable along slots until the upper most protrusion abuts an end wall of at least one of these slots in which it is located.

30 Preferably the protrusions are adapted to extend through slots so as to protrude radially beyond the periphery of the neck region.

It is preferred that the closure device coupling means comprises at least one ring having an internal diameter closely approximating the outside diameter of the neck region of the closure device.

35 The ring may have an internal radius smaller than the radial length of at least one protrusion measured from the centre of the neck portion.

It is preferred that each ring has at least one

internal peripheral slot.

Each peripheral slot may be identical or may have a different width, axial length or depth.

It is preferred that the or each male portion of the
5 container has parameters of radial length, axial length
and peripheral width which are chosen to match a recess
or slot formed in at least one of the rings as well as a
slot or opening formed in the neck region of the closure
device whereby the closure device can be coupled to the
10 container and can be locked on the container by turning
each ring once male portions of the container have been
moved axially along a neck region slot and beyond a
recess of at least one of the rings.

It is preferred that the closure device forms a
15 combination lock with the coupling means of the container
when coupled thereto.

According to another aspect of the present invention
an intermediate member has the features of the neck
portion of the container but is separable from the
20 container whereby it can be sold coupled to the closure
device and hence locked thereto.

BRIEF DESCRIPTION OF THE DRAWINGS

A preferred embodiment of the present invention will
now be described by way of example only with reference to
25 the accompanying drawings in which:

Figure 1 shows an angled view of a closure device
assembly according to a preferred embodiment of the
present invention;

Figure 2 shows a top view of a cover element of the
30 closure device assembly shown in Figure 1;

Figure 3 shows a front view of the cover element
shown in Figure 2;

Figure 4 shows an angled view of the cover element
shown in Figure 2;

35 Figure 5 shows a bottom view of the cover element
shown in Figure 2;

Figure 6 shows a top view of a ring element of the
closure device assembly shown in Figure 1;

Figure 7 shows a front view of the ring element shown in Figure 6;

Figure 8 shows an angled view of the ring element shown in Figure 6;

5 Figure 9 shows a bottom view of the ring element shown in Figure 6;

Figure 10 shows an angled view of an assembled closure device assembly as shown in Figure 1;

10 Figure 11 shows an angled view of the coupling element and ring elements of Figure 1 when assembled; and

Figure 12 shows an underside angled view of the assembled component shown in Figure 11.

The closure device assembly 10 comprises a cover element 11, three ring elements 12, 13, 14 and a
15 container 15.

The cover element 11 shown in Figures 2 to 5 is in the form of a tubular cap having a cylindrical upper half 20 with a closed top face 21 and a cylindrical lower half 22 with four equally spaced peripheral slots 23 extending
20 downwardly from a small peripheral flange 24 which separates the upper and lower sections 20, 22.

The slots 23 are substantially identical and extend downwardly (as viewed in Figures 3 and 4) to the end of the cover element 20 and thus through another small
25 flange 25 located at the bottom end of the closure element 20.

Each of the flanges 24, 25 have approximately the same outside diameter and extend radially approximately 2mm above the general surface of the lower section 22.

30 Generally the outside diameter of the upper section 20 and lower section 22 are the same.

Each of the slots 23 has a uniform cross-section with parallel side walls.

35 Each of the ring elements 12, 13, 14 shown in Figure 6 consists of a cylindrical disk having a thin concentric circular ridge on its upper surface as shown in Figure 7.

The inner periphery of each ring 12, 13, 14 is provided with four equally spaced rectangular recesses

31.

The inside diameter of the ring elements 12, 13, 14 is slightly larger than the outside diameter of the lower section 22 of cover element 21.

5 The circular ridge has a diameter greater than the distance between opposing recesses 31. The height of the ridge 30 is approximately two thirds of the width of the main body of the ring elements 12, 13, 14.

10 As shown in Figure 1 the neck of a container 15 is specially configured to have a top section 40 surrounding the opening 41 to the container and which according to one embodiment could be provided with an external thread to allow a cap to be screwed on to it and thus seal the opening 41.

15 Below the top region 40 a cylindrical coupling region 42 is located having a slightly greater outside diameter as compared to that of the upper region 40. At its lowermost end coupling portion 42 is provided with a peripheral flange 43. Below the flange 43 the container
20 has the shape of a typical container for holding whatever the contents happen to be.

The neck region 42 is provided with four equally spaced series of lugs 44 extending radially from the surface of the neck region 42. Each series of lugs 44
25 consists of three lugs aligned vertically and having a generally rectangular cross-sectional shape. The distance between each lug 44 in a series of axially aligned lugs is slightly less than the overall height or axial length of each ring element. In fact the distance
30 from the top of one lug measured axially down to the top of an adjacent lug is approximately the same axial length of a ring element. In the embodiment described the uppermost lug has its upper face substantially flush with the top surface of the neck region 42. The lowermost lug
35 44 is spaced a distance from the uppermost surface of the flange 43 which distance is approximately the same as the axial length of a ring element plus the axial length of the flange 25.

The width of each lug 44 when viewed from above is slightly less than the width of each slot 23 thus allowing passage of each lug 44 through each slot 23. In the embodiment shown each lug 44 is also narrower in
5 width than the width of each recess 31 in the ring elements 12, 13, 14 although it is viable to change the shape and width of the recesses as well as their axial length.

As shown in Figures 11 and 12 the three ring
10 elements 12, 13 and 14 are placed over the lower section 22 of the cover element 11. These ring elements can be assembled as split ring elements which are joined so as to fit over the lower section 23 or can be placed over this lower section 23 before the lowermost flange 25 is
15 formed.

In Figure 12 the ring elements 12, 13 and 14 are shown arranged so that their recesses are in axial alignment with the slots 23 of the lower section 22.

To couple the cover element and ring element
20 assembly 11, 12, 13, 14 to the container neck 15 the cover element assembly shown in Figures 11 and 12 is placed over the neck 15 and is able to slide all the way down the neck until the lowermost face of ring element 14 abuts the uppermost face of flange 43.

25 The lugs 44 slide freely within the slots 23 and recesses 31 and the upper surface of the uppermost lugs 44 abut the lowermost surface of flange 24 of the cover element 11.

It should be noted however that other embodiments of
30 the invention do not have the lugs abutting with flange 24 if ring 14 abuts with flange 43. It is quite possible to couple the components together without any abutment of surfaces.

With the cover element assembly completely over the
35 neck 15 the ring elements 12, 13 and 14 can be turned so that the position of the recesses 31 is changed with respect to the slots 23. As soon as this occurs the cover element 11 is locked to the neck 15 because the

lugs 44 are trapped between adjacent ring elements 12, 13, and 14 as well as ring element 12 and flange 24. The lugs 44 are short enough so that they are fully contained within the circular ridge of one of the ring elements 12, 13, 14 so that each ring element 12, 13, 14 is able to rotate over the lugs 44 so that there is no way of knowing when the recesses 31 are aligned with the slots 23.

According to one embodiment each of the ring elements is provided with peripheral markings such as numbers and slots 23 and recesses 31 are only in alignment when a particular combination of markings such as numbers are in alignment. Thus the assembly described above acts as a combination lock so that the cover element 11 can only be removed if the correct combination of markings on the exterior of the ring element are in axial alignment thus enabling the lug to pass through the slots to either remove or replace the cover element 11.

The number of ring elements provided can be changed and the size of the slots and openings can be changed to make it more difficult to identify the combination of markings which would allow the cover element to be removed from the neck 15.

To make it more difficult to break the required combination to release the cover element 11 from the neck 15 the shape of the recesses 31 can be changed as well as their frequency and location. Similarly the number of slots can be changed as can their shape.

Additional embodiments are encompassed by the invention and include different shaped cap elements as well as different shaped ring elements and neck shapes for containers. In the preferred embodiment shown above the neck region 15 is typically that which would be expected for a bottle. However a different shaped neck region 15 would be envisaged for containers for tablets, or containers such as boxes. Furthermore although the invention has been described in relation to cylindrical shaped ring elements 12, 13, 14 and associated cover

element 11 and neck region 15 other shaped components are also encompassed by the inventive concept such as rectangular, square, triangular and hexagonal and other polygonal shaped components.

5 According to other embodiments of the invention the configuration of components shown in Figure 1 could be reversed so that lugs are provided on the cover element 11 and slots are provided in neck region 15 for example by way of a separate sleeve element which fits over the
10 container opening 40 and thus is located below a screw-on cap.

 The embodiments described above enable a cap or lid to be hidden below the coupling element 11 so that it is not possible to tamper with the contents of the container
15 by removing the cap or lid because only the owner of the coupling element assembly would know the particular combination required to remove it from the container neck 15. Thus the ability of a third person to tamper with the contents of a container are greatly reduced if not
20 eliminated.

CLAIMS

1. A closure device for preventing easy removal of a lid, the device comprising a cover adapted to fit over a lid of a container, and a closure coupling means adapted to be coupled with a container coupling means of the container to secure the closure to the container.
2. A closure device as claimed in claim 1 wherein the closure coupling means of the closure includes at least one sleeve member adapted to be located over a neck region.
3. A closure device as claimed in claim 2 wherein the closure coupling means is retained between first and second abutment surfaces at respective ends of the neck region.
4. A closure device as claimed in claim 3 wherein the closure coupling means includes coupling portions adapted to couple with coupling portions of the container coupling means.
5. A closure device in which the closure coupling portions include peripheral female portions in the neck region.
6. A coupling device as claimed in claim 5 wherein the closure coupling means is adapted to couple with container coupling portions including male portions located in a neck region of the container.
7. A closure device as claimed in claim 5 or 6 wherein the closure female portions comprise axial slots.
8. A closure device as claimed in claim 7 wherein the closure coupling means comprises sleeve members located over the neck region and rotatable there around.
9. A closure device as claimed in claim 8 wherein each sleeve member comprises a ring element having an inner peripheral surface with at least one recess located therein.
10. A closure device as claimed in claim 9, wherein the coupling means is in the form of a combination lock which enables the closure device to be removably connected to a container.

11. A closure device as claimed in claim 10, wherein the closure device comprises a housing portion which is adapted to completely cover a lid of the container.
- 5 12. A closure device as claimed in claim 11, wherein the sleeve members are rotatable around the neck region to align inner peripheral female portions with slots in the neck region.
- 10 13. A closure device as claimed in claim 12, wherein each sleeve member is substantially identical.
- 15 14. A closure device as claimed in claim 13, wherein the female inner peripheral portion comprises a recess which when aligned with a slot enables a protrusion of a neck region of a container to slide along the slot.
- 20 15. A closure device as claimed in claim 14, wherein the or each ring element is loosely held on the neck region so that the combined axial length of the ring elements is less than the axial length of the neck region as measured between the abutment surfaces.
- 25 16. A closure device as claimed in claim 15, wherein each ring element has at least two inside peripheral regions each having a different diameter.
- 30 17. A closure device as claimed in claim 16, wherein each ring element comprises a first inside peripheral region provided with female coupling portions and a second inside peripheral region provided with an inner peripheral area of greater inside diameter than the first inside peripheral region.
- 35 18. A closure device as claimed in claim 17, wherein the inside radius of the second inside peripheral region is the same as or larger than the inside radius of at least one of the female portions in the first inside peripheral region.
19. A closure device as claimed in claim 18, wherein each ring element comprises a region having a greater inside radius than the maximum radial length of a male portion of the neck of the container as measured

from a central axis of the neck of the container.

20. A container for preventing easy removal of a lid attachable thereto, the container having an opening and a neck portion including container coupling means adapted to couple with coupling means of a closure device and a lid receiving section for receipt of a lid to seal contents of the container, wherein the container coupling means is adapted to couple with the coupling means of the closure device subsequent to the lid sealing the contents of the container.

21. A container as claimed in claim 20, wherein the coupling means is located below the lid receiving section.

22. A container as claimed in claim 21, wherein the container coupling means comprises coupling portions adapted to couple with matching coupling portions of the closure device.

23. A container as claimed in claim 22, wherein the container coupling portions include peripheral portions.

24. A container as claimed in claim 23, wherein the coupling portions include a plurality of axially aligned peripheral protrusions.

25. A container as claimed in claim 24, wherein the axial space between adjacent protrusions is at least equivalent to the axial length of a coupling portion of a sleeve element of a coupling means of the closure device.

26. An intermediate member for use with a closure device to prevent easy removal of a lid of a container, the intermediate member having a neck portion adapted to be received over a container neck and having a coupling means adapted to be able to couple with a coupling means of the closure device having a cover adapted to fit over the lid of the container.

27. An intermediate member as claimed in claim 26, wherein the coupling means of the intermediate member and the coupling means of the closure device together

form a combination lock when coupled together.

28. An intermediate member as claimed in claim 27 in combination with a closure device as claimed in any one of claims 1 to 12.

5 29. A closure device system substantially as hereinbefore described with reference to the accompanying drawings.

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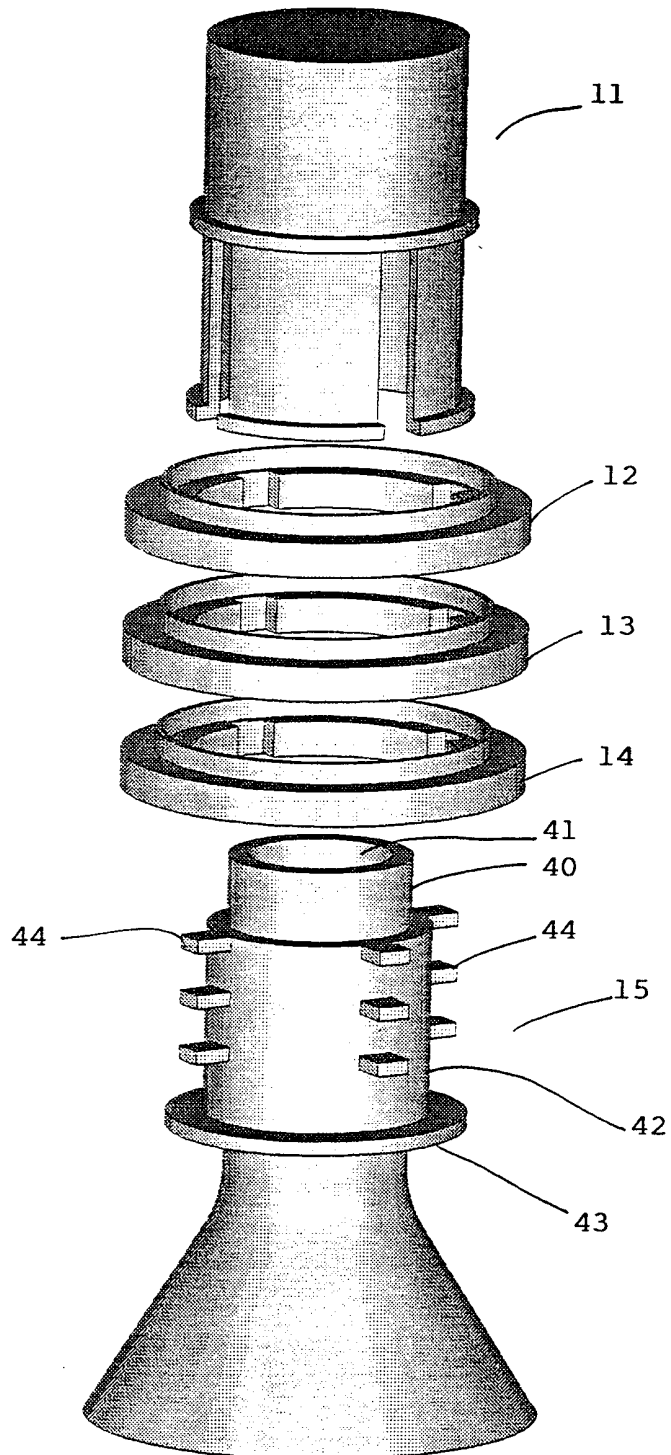


FIGURE 1

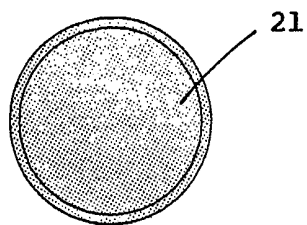


FIGURE 2

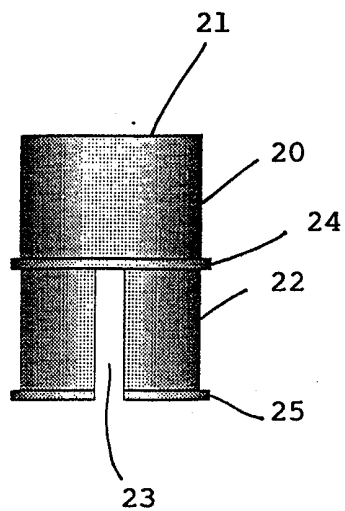


FIGURE 3

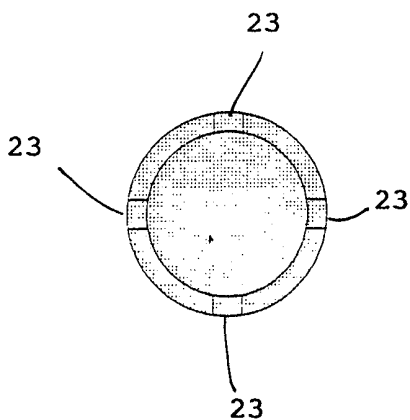


FIGURE 5

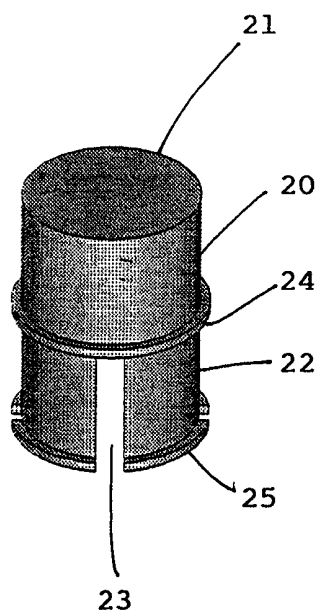


FIGURE 4

SHEET 3/5

FIGURE 6

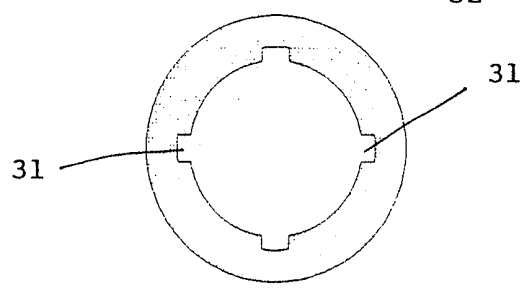
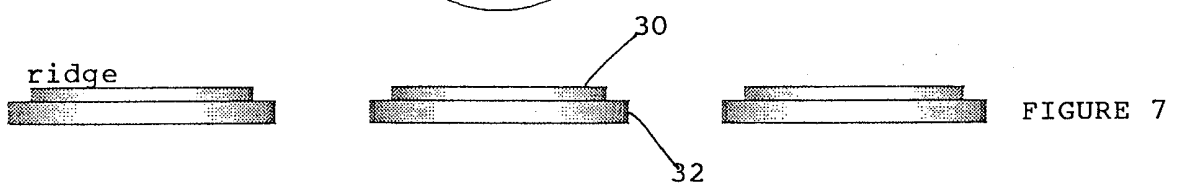
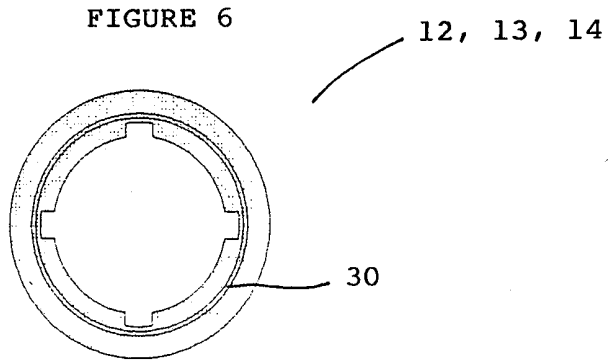


FIGURE 9

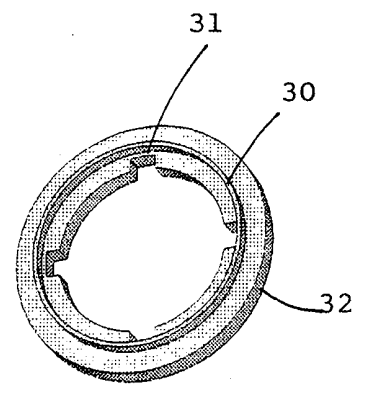


FIGURE 8

SHEET 4/5

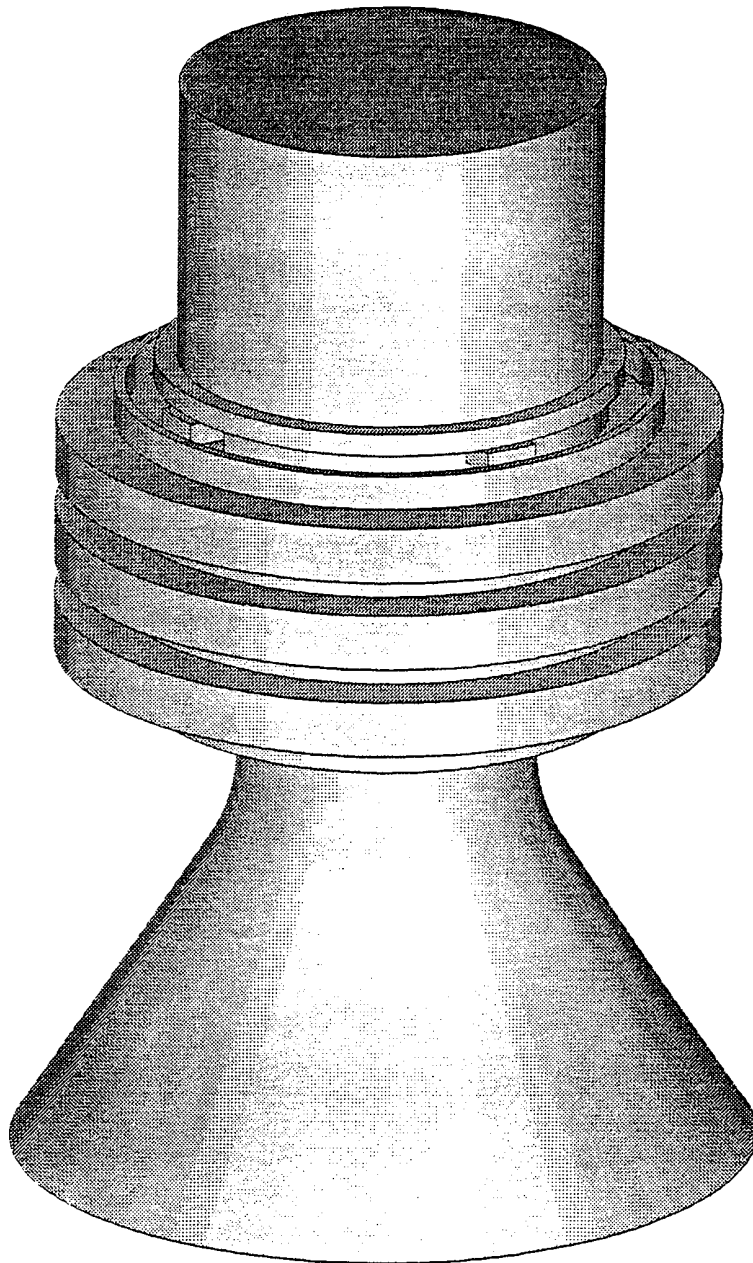


FIGURE 10

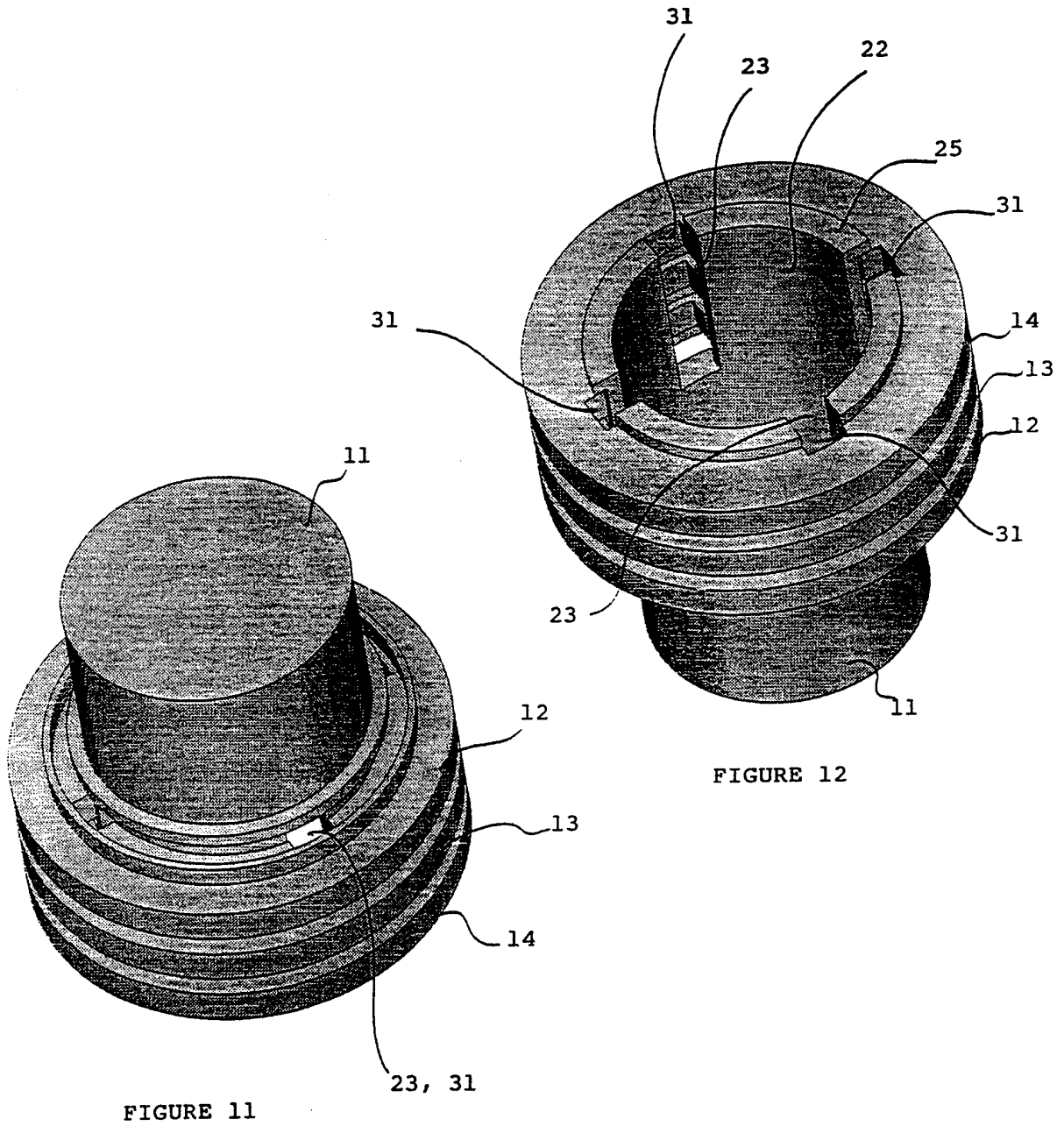


FIGURE 11

FIGURE 12

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU 98/00753

A. CLASSIFICATION OF SUBJECT MATTER					
Int Cl ⁶ : B65D 41/62, 50/06, 50/10, 55/02, 55/12					
According to International Patent Classification (IPC) or to both national classification and IPC					
B. FIELDS SEARCHED					
Minimum documentation searched (classification system followed by classification symbols) Int Cl ⁶ : B65D 50/06, 50/10, 55/02, 55/12, 55/14, E05B 37/02					
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched AU: IPC B65D 41/02					
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) WPAT					
C. DOCUMENTS CONSIDERED TO BE RELEVANT					
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.			
X	FR 2329535 A (GREMILLET et al) 29 October 1975 Claims 1, 2, figs 1-9, 14	1-29			
Y	WO 96/12655 A (ERIKSSON) 2 May 1996 Page 1, line 14 - page 3, line 14, figs 1-5	1-29			
Y	WO 81/02037 A (NAKAMURA SEITAI CO LTD) 23 July 1981 PCT Abstract, figs 1 and 2	1-29			
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex					
<p>* Special categories of cited documents:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 45%; border: none;"> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> </td> <td style="width: 5%; border: none; text-align: center;"> <p>"T"</p> <p>"X"</p> <p>"Y"</p> <p>"&"</p> </td> <td style="width: 50%; border: none;"> <p>later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>document member of the same patent family</p> </td> </tr> </table>			<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"T"</p> <p>"X"</p> <p>"Y"</p> <p>"&"</p>	<p>later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>document member of the same patent family</p>
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Date of the actual completion of the international search 23 October 1998		Date of mailing of the international search report 11 NOV 1998			
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200 WODEN ACT 2606 AUSTRALIA Facsimile No.: (02) 6285 3929		Authorized officer DAVID LOGAN Telephone No.: (02) 6283 2386			

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU 98/00753

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 83/01241 A (BAXTER TRAVENOL LABORATORIES INC) 14 April 1983 Page 6, lines 19-34, fig 1	1-29
Y	US 4230230 A (MUMFORD) 28 October 1980 Fig 1, column 1, line 27-55	1-29
Y	US 4093093 A (FOWLES et al) 6 June 1978 Fig 2, column 1, lines 76-57	1-29

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/AU 98/00753

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
WO	9612655	AU	36481/95				
WO	8102037	AU	67066/81	JP	56106767	EP	43859
		JP	57133980				
WO	8301241	AU	89524/82	EP	89978	NO	831769
		US	4378891	US	4511529		
US	4093093	CA	1107240	DE	2811091	FR	2383849
		GB	1580306				

END OF ANNEX